A STUDY TO ASSESS THE EFFECTIVENESS OF INTERACTIVE VIDEO INFORMATION ON PREOPERATIVE ANXIETY AMONG PATIENTS UNDERGOING ELECTIVE ABDOMINAL SURGERY IN A SELECTED HOSPITAL AT TIRUPUR.

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ABSTRACT

A Study to Assess the Effectiveness of Interactive Video Information on Preoperative Anxiety among Patients undergoing Elective Abdominal Surgery in a Selected Hospital at Tirupur.

The aim of the study was to determine whether preoperative interactive video information made any significant difference on anxiety level of the patients in a selected hospital.

The conceptual frame work used in this study was based on modified Titler,et al. Effectiveness model. (2004). A quasi experimental pre and post intervention two groups design was used to determine the effectiveness of interactive video information on preoperative anxiety. The samples consisted of 15 subjects in experimental and 15 subjects in control group selected by convenient sampling technique.

The data from the preoperative patients were collected using self rating anxiety scale one day before surgery for the both the groups. After the data collection samples in the experimental group were shown the video clipping one by one, after each video clipping samples were encouraged to ask questions and clarify their doubts and samples were also given additional information on the particular clipping. On the day of surgery before the administration of premedication the level of anxiety was assessed by self rating anxiety scale for both the groups. For the control group doubts were clarified after assessing the anxiety level on the day of surgery.

The anxiety was assessed in different areas namely state anxiety, Anxiety on pain, preoperative preparation, anesthesia, surgery, impact of daily living. In the experimental group significant mean score difference was seen between one day before and on the day of surgery. Significant difference is seen in all the areas, in state anxiety ($t=5.16$, $df=14$, $P<0.05$), anxiety on pain ($t=3.07$, $df=14$, $P<0.05$), preoperative preparation ($t=2.96$, $df=14$, $P<0.05$), anesthesia ($t=5.84$, $df=14$, $P<0.05$), surgery ($t=5.03$, $df=14$, $P<0.05$), anxiety on daily living (5.63, $df=14$, $P<0.05$).

In the control group there was no statistically significant difference was seen in all the areas of anxiety.

The results showed a significant reduction in the mean anxiety score of the experimental group (pre M=104.20 and post M=87.60) ($t=2.9$, $df=14$, $p<0.05$). But there was no significant reduction in the mean anxiety score among the control group.

Majority of the patients in experimental group was reported that, the interactive video information was useful, felt very interesting and no difficulty in participating in interactive video information session.

The study concludes that interactive video information was cost effective nursing intervention to reduce the anxiety level and promote comfort of the patients.

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CHAPTER – 1

INTRODUCTION

BACKGROUND OF THE STUDY

Surgery is defined as “the branch of medicine dealing with manual and operative procedures for correction of deformities and defects, repair of injuries, and diagnosis and cure of certain diseases”. **Jane F. Marek (2006)**

Ambroise pare a French surgeon during 16th century stated that there were five reasons to perform surgery: "To eliminate that which is superfluous, restore that which has been dislocated, separate that which has been united, join that which has been divided and repair the defects of nature." Since human beings first learned to make and handle tools, they have employed their talents to develop surgical techniques, each time more sophisticated than the last; however, up until the industrial revolution, surgeons were incapable of overcoming the three principal obstacles which had plagued the medical profession from its infancy bleeding, pain and infection. Advances in these fields have transformed surgery from a risky "art" into a scientific discipline capable of treating many diseases and conditions.

To make its transition to the modern era, the art of surgery had to solve three major problems (Bleeding, Infection and Pain). This effectively prevented surgery from progressing into modern science.

These problems were controlled by invention of new equipments in the field of surgery. Initially to control the bleeding cauterizing method was followed it was successful, but only usable in a limited fashion, highly destructive, and painful, with very poor long term outcomes. The next real breakthrough to come was the invention of ligaturers. At present a variety of tools exist to quickly stop bleeding blood vessels. Specialized surgical equipment use heat to seal the ends of cut blood vessels (**electrocautery**), in order to prevent blood from leaking out. The "**argon beam plasma coagulator**" uses argon gas and high-frequency electrical current to keep

bleeding under control. And minimally invasive surgery is other development to prevent loss of blood during surgery.

Awareness about preventing infection were started from the year of 1847 by the Hungarian doctor **Ignaz Semmelweis** followed by him **Louis Pasteur**, the British surgeon **Joseph Lister** began experimenting with using phenol during surgery to prevent infections. The gradual development of germ theory has allowed the final step to be taken to create the highest quality of aseptic conditions in modern hospitals, allowing modern surgeons to perform nearly infection-free surgery.

Anesthesia was discovered by two American dentists, **Horace Wells** (1815-1848) and **William Morton.** Before the advent of anesthesia, surgery was a traumatically painful procedure and surgeons were encouraged to be as swift as possible to minimize patient suffering. This also meant that operations were largely restricted to amputations and external growth removals.

Beginning in the 1840s, surgery began to change dramatically in character with the discovery of effective and practical anaesthetic chemicals such as ether and chloroform. In Britain, **John Snow** pioneered the use of these two anaesthetics. In addition to relieving patient suffering, anaesthesia allowed more intricate operations in the internal regions of the human body. The further discovery of muscle relaxants such as curare also facilitated safer applications.

Since the mid 1980s, an array of lasers and endoscopes have enhanced the practice of surgery. Operating microscopes combined with these instruments have promoted a surge in microsurgical procedures. Body parts are now often successfully reattached, smaller surgical incision are required for many procedures, and operations can be performed successfully that were only dreamed of a couple of decades ago.

Laser is used in various surgery and to remove growths on the vocal cords. They also are used in gynecological and genitourinary surgery and to some degree in most other surgical area.

The use of fibrooptics in the operating room is the other innovation that has made surgery less invasive. By using an endoscope through a very small incision, the surgeon can remove growths and small organs without making a traditional surgical incision. Laparoscopic surgery, in which an endoscope is introduced through the abdominal wall, has been used to remove the appendix and the gallbladder.

There are several physiological problems that can arise from the surgery, like problems associated with anesthesia like aspiration or breathing food or fluid into the lungs during surgery bleeding and delay in wound healing. This type of physiological problems are now reduced because of tremendous changes in the surgical instruments and technological advancement.

Phipps (2007) says that Anxiety on surgical patient is a normal adaptive response to the stress of surgery and can occur at any time throughout the perioperative period. Potential sources of anxiety include anticipation of impending surgery, Pain and discomfort, changes in body image or function, role changes, loss of control, family concerns, or potential alterations in lifestyle.

Every patient have some types of emotional reaction before any surgical procedure because it is obvious or hidden, normal or abnormal for example preoperative anxiety may be an anticipatory response to any change in custom, role in life, body integrity, or life itself. Most patients who are waiting to undergo surgery have fear including fear of unknown, of death, of anesthesia, of pain, or of cancer, concern about loss of work time, loss of job, increased responsibility or burden on family members and the threat of permanent incapacity further contribute to the emotional strain by the prospect of surgery.

Anxiety level may remain high in the immediate post operative period, during recovery slowly it will come down and once patients are about to get discharged patient will have slight anxiety on follow-up care.

Many factors contribute to this anxiety: Mainly previous surgical experience may be positively or negatively affect the patient's level of anxiety. Anxiety may be

decreased if the patient views the surgery as having positive results such as curing the disease, relieving the disease and relieving the discomfort or creating more attractive physical appearance in contrast anxiety usually is increased when the underlying pathologic condition is perceived to be life threatening. Other factors like being in an unfamiliar environment, inability to control ones circumstances or care for oneself, fear of long term effects of surgery, fear of complications, may increase anxiety level of the patients.

Many patients were admitted for elective surgery one day before and the nurses have a short time to prepare them psychologically. Anxiety may be raised from the hospitalization itself and the patients had many doubts about the surgery. Due to the uncertainty about their condition patients were interested in gathering information about surgery.

Physiological manifestations of anxiety include increased pulse and respiratory rate, increased blood pressure, abdominal distress, and increased urinary frequency. Excessive periods of anxiety or stress can lead to increased protein breakdown, decreased wound healing, altered immune response, increased risk of infection and fluid and electrolyte imbalance. Loss of control over the incident is one of the reason for increasing anxiety of the patients, allowing them to maintain some control over the events will reduce anxiety. Despite the development in the surgical field this anxiety remains the main problems in the surgical patient.

According to Surgeon **Dr. Eric Robins**, **(2007)** 80 to 90 percent of all the surgical patients have noticeable anxiety before their operation. Sometimes the anxiety is quite severe. He suggests that if people were less anxious before the surgery, the amount of anesthetic they require could be reduced. If a person tend to have excess anxiety before surgery, research says that they will likely have more pain and use more pain medication after the operation.

Jane F. marek (2006) stated that empowering patients by increasing their sense of control before surgery is essential for decreasing patient anxiety. Loss of

control is one of the fears associated with surgery. Allowing patients to participate in decisions concerning their care allows them to maintain some control over events.

Walker J.A (2007) study indicate that the provision of good quality preoperative information facilitates patients active involvement in their care and therefore may contribute to an overall increase in the satisfaction that remains a need for rigorous research to identify the optimum timing and method of delivering preoperative information to maximize their positive effects on patients undergoing elective surgery.

Elsass and colleagues (2007) conducted a study on patients undergoing elective cardiac surgery, it was also determined that the amount of information offered before the surgery will reduce the postoperative complication such as vomiting and shivering. The patient who was extensively prepared for surgery preoperatively had a better physical recovery with less postoperative complications such as hypertension and tachyarrhythmias than the patient with little or no preoperative preparation.

NEED FOR THE STUDY

Preparation of the patient for surgery starts before or shortly after admission. Patients has to give consent, after getting consent physical preparation like digestive tract preparation by enema, ingestion of fluids and foods is restricted for specific period of time, skin preparation is done to reduce the number of organisms near the incision site and patient were put operation theater dress and grooming has to be done before entering the operation theater.

The physiological preparation mainly focusing on empowering patients by increasing their sense of control, allowing patients to participate in decisions making concerning their care allows them to maintain some control over the events.

The surgeons are diagnosing the disease condition after diagnosing, patients are informed about the disease condition and the treatment choice available for their problem. Once the patients hear the need for surgical intervention their emotional status will be very much affected, they will be tensed and afraid of the consequences

following the surgery. This creates anxiety among the patients undergoing surgery especially during the pre operative period.

The anesthetist will visit the patient one day before the surgery to assess the health status and whether the patient is fit for surgery under anesthesia. He may explain slightly about the anesthesia and prescribes drugs to reduce the anxiety of the patients.

Now a days due to the development in the field of surgery like “Key hole surgery” and “Day care surgery” patients are admitted one day before or on the day of surgery. This minimizes the time available for psychological preparation of the patient. So to address this problem an innovative intervention which could be used within a short period of time need to be identified.

The investigator during his clinical experience observed that the patients were expecting to collect so many information about their surgery and also they wanted to clarify their doubts with the medical professionals. This has motivated the investigator to prepare an interactive video information for the patients, which could be conducted within a short period of time available and also it is very easy to practice in clinical settings.

Presently there are so many interventions available to reduce preoperative anxiety of the patients like deep breathing, relaxation exercises, music therapy, guided imagery, humor, touch therapy, most of these interventions are very difficult to carry out on patients admitted for day care surgery. So the selection of intervention to reduce anxiety should be appropriate one. This can be done by conducting an interactive video information. By conducting the interactive video information the nurse educator can take an important role in relieving the anxiety of the patient and it also can be conducted as a group interaction so that the time can be saved and the patient’s anxiety also can be reduced.

PROBLEM STATEMENT

A Study to Assess the Effectiveness of Interactive Video Information on Preoperative Anxiety among Patients undergoing Elective Abdominal Surgery in a Selected Hospital at Tirupur.

AIM OF THE STUDY

The aim of the study was to determine whether information given through interactive video clippings made any difference in the preoperative anxiety of patients undergoing elective abdominal surgery compared to the patients without the interactive video information.

SPECIFIC OBJECTIVES

The specific objectives of the study were

1. To assess and compare the level of anxiety among control and experimental group one day before surgery with regard to state anxiety, pain, preoperative preparation, surgery and anxiety on daily living.
2. To assess and compare the level of anxiety among experimental and control group after preoperative interactive video session on the day of surgery in different areas of anxiety.
3. To compare the level of anxiety of experimental group one day before and on the day of surgery in different areas of anxiety
4. To compare the level of anxiety of control group one day before and on the day of surgery in different areas of anxiety.
5. To associate the level of anxiety and demographic variables.

HYPOTHESIS

H_1 There will be a significant difference between the mean anxiety score of experimental and control group on the day of surgery.

H_{01} There will be no significant difference between the mean anxiety score of experimental and control group one day before surgery.

H_2 There will be a significant difference between the mean anxiety score of experimental group one day before and on the day of surgery.

H_{02} There will be no significant difference between the mean anxiety score of control group one day before and on the day of surgery.

OPERATIONAL DEFINITON

Preoperative Anxiety

Preoperative Anxiety is a state of apprehension or fear, either real or imagined by patients who are waiting for surgery resulting from anticipation of threatening situation of surgery. The characteristics of anxiety can be verbalized by the person who experiences the anxiety. In this study self reported anxiety was measured on anxiety scale with regard to different areas of anxiety such as State anxiety, Pain, Preoperative Preparation, Anesthesia, Surgery and anxiety on daily living.

Elective Abdominal Surgery

An elective abdominal surgery is a planned, non-emergency surgical procedure in the abdominal cavity through an incision made on the abdominal wall.

Interactive Video Information

Interaction is a kind of action that is conversation or exchange of information between the patient and the investigator based on the video, which consists of information regarding the surgery and recovery shown to the patient.

ASSUMPTION

1. Preoperative anxiety is common among patients waiting for surgery.
2. Preoperative anxiety vary from one person to other person
3. Preoperative anxiety is influenced by various factors like personal and environmental
4. Preoperative anxiety can be reduced by using various therapeutic interventions like medication, psychological intervention and provision of information

DELIMITATION

The study is delimited to

1. Patients undergoing elective abdominal surgery
2. Patients undergoing surgery for first time.
3. Patients with in the age group of 20 to 60 years.
4. Patients in one selected hospital.

SCOPE OF THE STUDY

The study will highlight the preoperative anxiety of patients undergoing elective surgery. An interactive session with video clipping before the surgery will create an opportunity for the patients to clarify their doubts and reduce their level of anxiety. In addition to this it will establish a good therapeutic relationship between the nurse and the patients. If there is a difference in the level of anxiety of the experimental group after interactive information, it will be an indication of the effect of the information provided through interactive video session. This mode of giving information to patients with a short preoperative waiting period could be encouraged to minimize surgical patient’s anxiety.

CONCEPTUAL FRAME WORK

A conceptual model can be defined as a set of concepts and those assumptions that integrated them into a meaningful configuration (Fewett, 1980).

The development of a conceptual model is a fundamental process required before conducting actual research. The framework influences each state of research process. The conceptual frame work in nursing research helps to provide a clear concise idea of knowledge in the area.

The conceptual framework used in this study is based on **Titler et al** (2004) effectiveness model. Effectiveness indicates the benefits of health care that are achieved under ordinary circumstance for patients.

In this model there are two categories of independent variables (patient's characteristic and clinical conditions) and two categories of intervening variables (nursing unit characteristics and intervention delivered by nurse). The model is developed to test the relationship of these variables to multiple outcomes (improvement in health).

In this study the two categories of independent variables are patient's characteristics such as age, occupation, educational status, monthly income, and awareness about surgery in the area of pain, preoperative preparation, anesthesia, surgery and daily living.

The intervening variables: Interactive Video Information is demonstrated by investigator and benefits of interactive video information by assessing the state anxiety and different areas of anxiety.

Effectiveness: indicates the Benefits of Interactive Video Information on patient with preoperative anxiety.

Fig 1 : Modified Titler effectiveness model (2004)

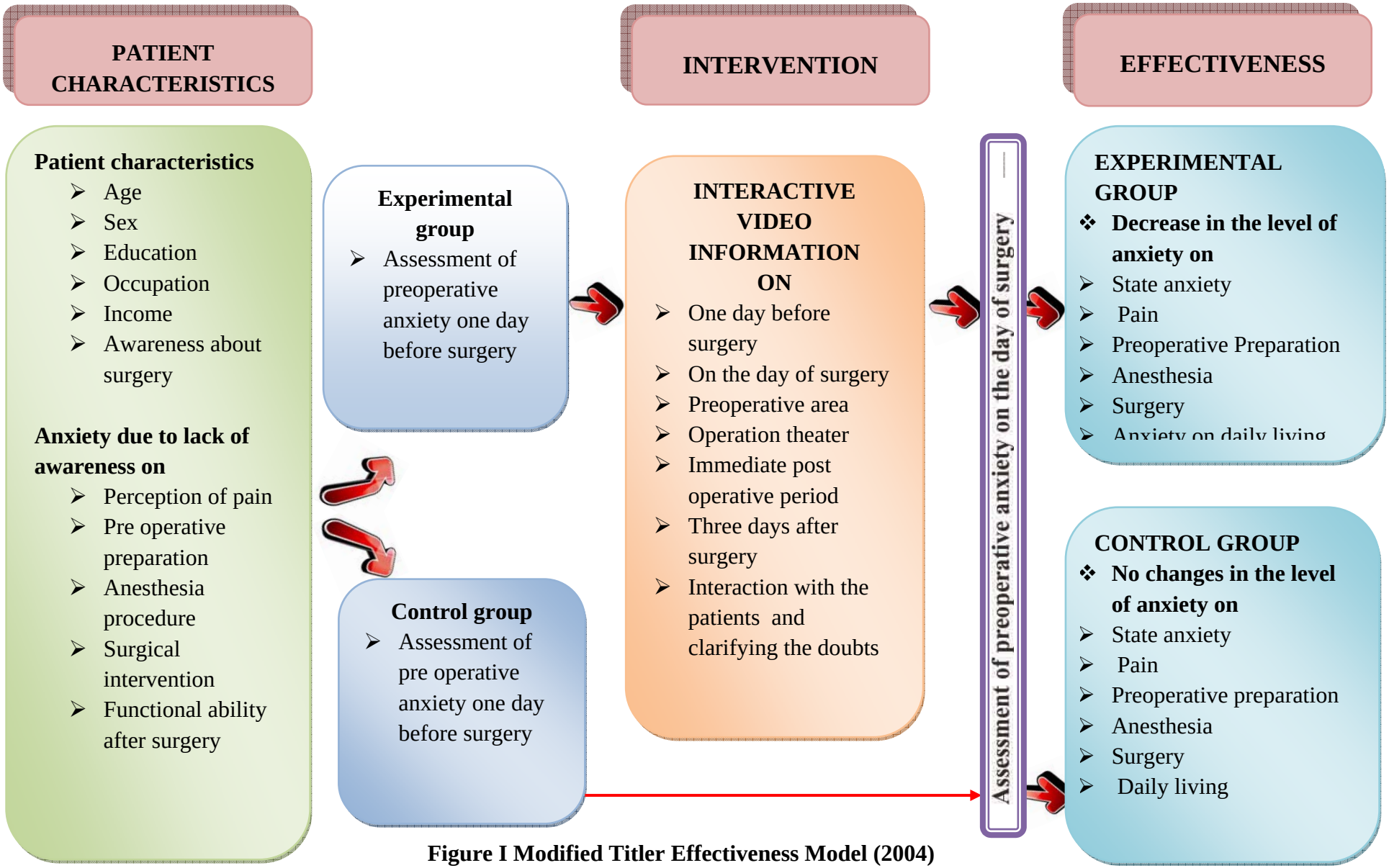

Figure I Modified Titler Effectiveness Model (2004)

CHAPTER-II

REVIEW OF LITERATURE

The review of literature in a research report is a summary of current knowledge about a particular practice-problem.(Nancy & Burns 2002). A literature review is an organized writer's presentation of what has been published on a topic by the scholars. The task of reviewing literature involves the identification, selection, critical analysis and reporting of existing information on the topic of interest.

The literatures found relevant and useful for the present study have been organized under the following headings

1. Literature related to pre-operative video interaction to reduce anxiety of the patient before surgery
2. Literature related to pre-operative teaching method to reduce anxiety of the patient before surgery

1. Literature related to pre-operative video interaction to reduce anxiety of the patient before surgery

Sørlie T, et al. (2007) conducted a study to assess the effects upon emotional well-being of patients following coronary artery bypass surgery after receiving Video Information combined with individualized information sessions. The video was shown pre-operatively and again during the session at admission. Patients were helped to express their questions and worries and congruent information and support was provided. Control group patients received standardized information and no video. Recordings were made at baseline, discharge from hospital and during a 2 years follow-up period. Result showed that at discharge intervention patients reported less anxiety ($p = 0.046$) and better subjective health ($p = 0.005$). They reported better

subjective health during the whole follow-up period (0.040 > or = p > or = 0.000), less anxiety up to 1 year (0.042 > or = p > or = 0.004), and less depression from 6 months to 2 years following discharge (0.023 > or = p > or = 0.004). The study concludes that the effects of the intervention probably relate to the combined use of the video and patient centered information sessions.

Stergiopoulou A. (2007) conducted a study to evaluate the impact of a multimedia CD (MCD) on preoperative anxiety and postoperative recovery of patients undergoing elective Laparoscopic Cholecystectomy (LC). Sixty consecutive candidates for elective LC were randomly assigned to four groups. Group A included 15 patients preoperatively informed regarding LC through the multimedia compact disk presented by Registered Nurse (RN). Patients in group B (n = 15) were informed through a leaflet. Patients in group C (n = 15) were informed verbally by a RN. Finally, the control Group D included 15 patients informed conventionally by the attending surgeon and anesthesiologist, as every other patient included in groups A, B, and C. Preoperative assessment of knowledge about LC was performed after each informative session through a questionnaire. Study result showed that patients in groups A, B, and C achieved a higher knowledge score, less preoperative anxiety score and less postoperative pain and nausea, compared to Group D. In multiple regression analysis, group A had a higher knowledge score compared to the four groups ($p < 0.001$ $r(2) = 0.41$). Study conclude that Informative sessions using MCD is an effective means of improving patient's preoperative knowledge, especially in day-surgery cases, like LC.

Danino AM. (2006) conducted a study to assess the effect of information by images on patients anxiety Patients scheduled to undergo abdominoplasty were approached during the first preoperative consultation. Totally 60 patients participated out of them 30 were assigned to look at the CD-Rom and the remaining 30 not. The result showed that patients who watched the CD-Rom were significantly less anxious before aesthetic surgery than those who did not (Mean STAI (state anxiety inventory) 45 for the "image group" [38.2-46.3] vs 55 for the "no image group"

[49.9-63.8]). Furthermore they also scored higher in the knowledge questionnaire than the "no image" group.

Pager CK. (2005) conducted a study to investigate the effects of an informational video on patient expectations and satisfaction with day-stay cataract surgery. 141 patients undergoing day-stay cataract surgery were randomized into one of two video groups, explaining either what to expect from the cataract surgery or the anatomy of cataract. Patients were surveyed as to their expectations for visual outcome, anxiety, risk, comprehension, overall satisfaction, and comparison with expectations. The results showed that video group was significantly more satisfied, understood better what was happening to them, and felt less anxious.

Ayral X, (2002) conducted a study to assess the effects of Video Information on Preoperative Anxiety level and tolerability of joint lavage in knee osteoarthritis. Preoperative anxiety level was measured on a 100mm visual analog scale (VAS) and tolerability was assessed using a 4 grade scale. Results showed that One hundred twelve patients (56 patients in each group) were included and completed the trial. Preoperative anxiety was lower by half for patients who had viewed the video (VAS 13 +/- 20 versus 26 +/- 27; P = 0.0056). Tolerability of knee lavage was also significantly better in the video group (very tolerable 91% versus 48%; P < 0.0001).

Doering S, (2000) conducted a study to assess the Videotape preparation of patients for hip replacement surgery. 100 patients were randomly assigned to a control group or a preparation group was shown the videotape on the evening before surgery. Anxiety and pain were evaluated daily for 5 days beginning with the preoperative day by means of the state trait Anxiety inventory and a visual analog scale. The result suggested that videotape preparation decreased anxiety and stress, measured in terms of urinary cortisol excretion and intraoperative systolic blood pressure increase, in patients undergoing hip replacement surgery and prepared them to cope better with postoperative pain.

2. Literature related to pre-operative teaching method to reduce anxiety of the patient before surgery.

San Antonio (2008) conducted a study with 387 random volunteer patients. Patients were then asked to read a 1-page informational handout After reading the informational hand out patients anxiety was measured and it was found that over 40% of patients demonstrating a statistically significant reduction in their fear levels, the study suggests that consideration should be given to making an informational handout available on a routine basis to patients in preoperative anesthesia and surgical clinics. Additionally, it seems that younger patients (under the age of 40 years old) and those with no prior surgeries are the most likely to benefit from such a handout.

Oshodi TO.et,al. (2007) conducted a study to assess the effect of preoperative education on postoperative anxiety, pain and recovery. This study results showed that education before surgery reduces anxiety and enhances postoperative outcomes.

Walker J.A. (2007) conducted a study to assess the effect of preoperative information on patient satisfaction. The study concluded that the provision of good-quality preoperative information facilitated patients' active involvement in their care, and therefore may contribute to an overall increase in satisfaction.

Deyirmenjian M.et al. (2006) conducted a study to assess the impact of preoperative patient education on anxiety and recovery of the patients undergoing open-heart surgery. The quasi-experimental study was conducted at a large hospital in Beirut. All patients who were admitted to the cardiac surgery unit and who meet the inclusion criteria were randomly assigned to as experimental or a control group. The patients in the experimental group (n= 57) received a special educational session on their admission day and had a tour of the cardiac surgery unit. The control group (n=53) followed the routine hospital protocol, which encompassed almost no preoperative education or a tour. Anxiety was assessed using the beck anxiety inventory while recovery was measured by physiological outcomes, days of hospital stay, and presence of complications. The results showed that Borderline statistical

significance was noted for the experimental group in terms of preoperative and postoperative anxiety. The experimental group had a shorter time from awakening to extubation.

Shimko C. (2006) conducted a study to assess the effect of preoperative instruction on state anxiety. State anxiety was measured in 81 patients scheduled for back and neck surgery before and after preoperative instruction. Anxiety levels were significantly reduced after instruction was given.

Ivarsson B,et al. (2005) conducted a study to assess the effect of providing extended written pre-operative information about possible complications at cardiac surgery among patients undergoing cardiac surgery. One hundred eighty-two patients were included I the intervention group and 156 in the control group. Questionnaires were distributed and experiences, anxiety and depression (the Hospital Anxiety and Depression scale, HADS), and avoidance or intrusion distress were measured before and 8 weeks after the surgery. The result showed that 72% of the intervention group and 69% of the control group wanted information about both common and rare complications of cardiac surgery. Patients in the intervention group were significantly more satisfied with all aspects of the information compared to the control group.

Asilioglu K. et al. (2004) conducted study on the effect of preoperative education on anxiety of open cardiac surgery patients. The study used the planed teaching method for 50 samples in experimental group. The result showed that there was no statistically significant difference in the state and trait anxiety scores between the groups

Kiyohara L.Y.et, al. (2004) conducted a study to assess the effect of Surgery information on anxiety in the pre-operative period. The result of the study showed that Knowledge of the diagnosis was clear for 91.7% of patients, of the surgery for 75.0%, and of anesthesia for 37.5%. Unfamiliarity with the surgical procedure raised state-anxiety levels ($P = 0.021$). A lower state-anxiety level was found among patients who did not know the diagnosis but knew about the surgery ($P = 0.038$).

Sjöling M, (2003) conducted a study to assess the impact of preoperative information on state anxiety, postoperative pain and satisfaction with pain management. The study was an intervention study with two groups of equal size (n=30). The intervention group was given specific information while the control group received routine information. Pain assessments were made preoperatively and every 3 hours for the first three postoperative days, using the visual analogue scale (VAS). The results of this study suggest that information does influence the experience of pain after surgery and related psychological factors. The postoperative pain declined more rapidly for patients in the treatment group, the degree of preoperative state anxiety was lower and they were more satisfied with the postoperative pain management.

Shuldham C.M, (2002) conducted a study to assess the impact of pre-operative education on recovery following coronary artery bypass surgery. Result of the study showed that there were no significant differences between groups in the primary outcomes namely anxiety (P=0.09) and pain (P=0.48), or in depression (P=0.62) and wellbeing 6 months after operation. There was a significant difference in length of hospital stay (P=0.01) with the experimental group having the longer stay. These findings contrasted with much of the existing evidence.

Bondy LR, (1999) conducted a study on the effect of anesthetic patient education on preoperative patient anxiety. The result showed that a statistically significant difference between the subjects who received the video and pamphlets and the usual care subjects were detected with respect to change in STAI-assessed anxiety from baseline to immediately prior to surgery (P = .035).

Conclusion

The review of literature enlightened the investigator to develop an insight into the preoperative teaching and its effects in the review of literature many studies were conducted to reduce the level of preoperative anxiety, the specifically the video teaching have shown the more effectiveness. This review helped the investigator to gain a deeper knowledge of the research problem and guided in designing the study.

CHAPTER – III

RESEARCH METHODOLOGY

Methodology of research organizes all the components of the study in a way that is most likely to lead to valid answers to the sub problems that have been posed (Burns and Grove, 2002).

This chapter presents the research design, setting, population, sample size and sampling technique, sampling criteria, tools used, construction of the tools, validity, reliability, pilot study, and data collection adopted for the study.

RESEARCH APPROACH

The research approach is an overall plan chosen to carry out the study. The selection of research approach is the basic procedure for the conduct of research inquiry. An evaluative approach was used in this study as the study aimed at assessing the effectiveness of interactive session with video clippings on preoperative anxiety.

RESEARCH DESIGN

A quasi experimental pre- test and post test control - group design was used to test the effectiveness of interactive session on preoperative anxiety.

Experimental group O1 ---------- X ----------O2

Control group O1 ----------O2

O1- Assessment of preoperative anxiety one day before surgery for the experimental and control group.

O2- Assessment of anxiety on the day of surgery for the experimental and control group.

X – Information through interaction following watching of the video clipping for the experimental groups

VARIABLES IN THE STUDY

Independent variable

Interactive video information

Dependent variable

Pre - operative anxiety. (State anxiety, Pain, Preoperative preparation, Anesthesia, Surgery, Impact of Daily Living.)

SETTING OF THE STUDY

Setting refers to the area where the study is conducted. The setting for the study was a selected hospital at Tirupur. The 100 bedded multi specialty hospital consists of all the facilities for emergency care and surgical treatments.

Hospital consists of five floors. Ground floor was used as out patient department, the first floor consists of Operation Theater and immediate post operative recovery area, second floor consists of Intensive Care Unit with 14 beds and also 30 beds were distributed in general ward and sharing room. In the third floor and fourth floor 60 beds were distributed in general ward, and sharing rooms. Fifth floor consists of special rooms with 10 beds. Patients admitted for surgery are accommodated in different wards according to their interest in different floors one day before surgery. After the surgery the patient are shifted from the operation theater to surgical Intensive Care Unit for observation, once the patients vitals are stable they will be shifted to the respective ward where they stayed previously.

TARGET POPULATION

The population consisted of all the patients admitted for elective abdominal surgery (Laprotomy) in the age group of 21 to 60 years in the selected hospital during the period of study.

SAMPLE SIZE

Sample refers to a subset of population that is selected to participate in a particular study **(Burns and Grove 2002).**In this study the sample consisted of thirty patients who were admitted for elective abdominal surgery (15 in the experimental and 15 in the control group)

SAMPLING TECHNIQUE

A non probability convenient sampling technique was used. The samples were selected from different floor according to the availability and alternatively assigned to the experimental and control group.

SAMPLING CRITERIA

Inclusion criteria

a) Pre operative patients admitted for elective abdominal surgery
b) Patients in the age group of 21 to 60 years
c) Patients not having previous experience of surgical intervention
d) Those who were willing to participate in the study

Exclusion criteria

a) Patients undergoing laparoscopic surgery.
b) Patients admitted on the day of surgery.

DESCRIPTION OF THE TOOL

The tool used for the data collection was a Questionnaire in 2 parts

Part I consisted of personal information like age, sex, education, occupation, monthly income, awareness about surgery and sources of information.

Part II was designed to assess the anxiety of patients admitted for elective abdominal surgery. A four point rating scale (Not at all, A little, Some what, Very much) was constructed with 45 statements distributed in the following areas of anxiety.

Item	Scoring
State anxiety	20 items
Anxiety on Pain	5 items
Anxiety on Preoperative Preparation	5 items
Anxiety on Anesthesia	5 items
Anxiety on Surgery	5 items
Anxiety on Impact of daily living	5 items

In the state anxiety first ten questions were negative items and remaining ten questions were positive items. In all other areas there was 1 negative statement and 4 positive statements.

SCORING AND SCORE INTERPRETATION

Scoring of anxiety scale

A response in the “Not at all” column scored 1. “A little” column scored 2. “Some what” column scored 3 and response in the “very much” column was given a score of 4. The negative statements were scored reversely.

In the state anxiety the minimum score was 20 and maximum score was 80

Score	Grading
20	No anxiety
21 to 40	Mild anxiety
41 to 60	Moderate anxiety
61 to 80	Severe anxiety

In other five areas (Pain, Preoperative Preparation, Anesthesia, Surgery, Daily living) minimum score was 5 and maximum score 20.

Score	Grading
5	No anxiety
6 to 10	Mild anxiety
11 to 15	Moderate anxiety
16 to 20	Severe anxiety

DEVELOPMENT OF THE TOOL

The tool was developed based on the objectives of the study, review of literature and discussion with experts. The investigator own experience of working in the preoperative area contributed in developing the tool.

VALIDITY OF THE RESEARCH TOOL

The research tool including the objective of the study along with the criteria check list were submitted to five experts three Nursing, one Surgeon and one Clinical Psychologist. The three nursing experts were Professors with Masters Degree in Nursing and working in different colleges of nursing in Coimbatore with more than 5 years of experience.

The surgical expert had MS in General Surgery and was working in a Private Hospital in Coimbatore for more than 10 years. The Clinical Psychologist was working in a private hospital in Coimbatore and had an experience spanning 15 years which included private practice.

RELIABILITY OF THE RESEARCH TOOL

The reliability of the tool was tested by split half method. The test was administered to 10 patients. Correlation co- efficient was calculated by Karl Pearsons method. The obtained 'r' value was 0.9 and Spearman Brown Co-efficient was 0.9 which confirmed that there was high positive correlation and internal consistency of the tools. The Correlation Co-efficient by Spearman Brown co-efficient for different areas 'r' values were State anxiety (0.9), Pain (0.7), Preoperative Preparation (0.8), Anesthesia (0.9), Surgery (0.9), and in daily living (0.9) which conformed that all the areas were having positive correlation and internal consistency of tool.

DEVELOPMENT OF VIDEO CLIPPINGS

Video was developed on the basis of the experiences of the investigator during his clinical posting and on the basis of review of literature the needs and expectation of surgical patients. Permission was obtained from the concerned authority and the video was taken in a private hospital. Video clipping was developed in real situation and it was developed to give clear idea and information about selected surgical intervention. A patient was selected as a model and was explained regarding his role in the video. After getting written consent from the patient video was taken and the patient was given incentives for his cooperation in the development of video clipping. The video clipping consisted of six shots from different areas of surgery, as given below (appendix viii)

SECTION	DURATION	LOCATION
1. One day before surgery	1 Minute 13 seconds	General ward
2. On the day of surgery	0 Minutes 11 seconds	General ward
3. Pre operative area	1 Minute 15 seconds	Anesthesia room
4. Operation theater	2 Minutes 41 seconds	Operation theater
5.Immediate post operative period	2 Minutes 21 seconds	Recovery room
6. Three days after surgery	1 Minutes 20 seconds	Patient room
TOTAL	9 Minutes 01 second	

VALIDITY AND RELIABILTY OF VIDEO CLIPPING

The video clipping was viewed by the Managing director and the Nursing Coordinator of the hospital where the video was taken. It was also showed to the department HOD in the college and Common Men to get suggestions. Based on their suggestions editing was done.

PILOT STUDY REPORT

A pilot study was conducted in the same selected hospital to test the feasibility of the study. Permission was obtained from the concerned authority of the hospital. 10 samples were taken who was admitted one day before surgery; patients were randomly assigned to control and experimental group. In the experimental group anxiety was assessed using anxiety scale one day before surgery then interactive Video Information session on one to one basis was held. On the day of surgery before premedication once again the anxiety was assessed. For the control group no Interactive Video Information was given. All other observations were done similar to the experimental group. The total period of data collection was 12 days. The pilot study confirmed the adequacy of the tool and technique. Hence no modification was required.

DATA COLLECTION

Before commencement of data collection once again the hospital authority was informed and permission obtained. The nursing superintendent of the hospital was contacted and briefed about the study. Every day the investigator contacted the nursing superintendent to know the cases admitted for abdominal surgery from each floor. Based on the information patients were approached and selected based on the criteria for sample selection and informed about the purpose of study, their role in the study, after getting consent from the patients. Every even first patient was assigned to experimental group and every second patient was assigned to control group. The patients were approached individually and so shown the video with the portable DVD player.

FIRST STEP

Patients in the experimental group were explained about the video and the sessions of the video clipping. They were also informed about their role in the interaction.

SECOND STEP

Patients were shown the video clipping one by one

THIRD STEP

Patients were encouraged to interact with the investigator after each Video Clipping. During the interactive session the questions related to the particular video clipping were answered and additional information's which they could not understand through watching video were also provided.

On the day surgery before giving the premedication level of anxiety was assessed for both the groups using self rating anxiety scale. The patients in the control group were also allowed to clarify their doubts after the data collection for their benefits.

PLAN FOR DATA ANALYSIS

The data obtained were analyzed using descriptive and inferential statistics.

Descriptive statistics

Frequency and percentage distribution were used to analyze demographic variables and to assess the level of preoperative anxiety.

Mean and mean score percentage was used to determine the difference in the level of preoperative anxiety.

Inferential statistics

"t" test was used to determine the significant difference in the level of preoperative anxiety in different areas of anxiety.

"χ^2" test was used to assess the association of demographic variables with the level of preoperative anxiety.

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

Data analysis is conducted to reduce, organize and give meaning to the data. Analysis technique in quantitative research includes descriptive and inferential analysis.

This chapter deals with the analysis and interpretation of data collected from 30 preoperative patients from a selected hospital at Tirupur.

The data have been presented under the following sections

Section – I Demographic characteristics of the samples

Demographic characteristics of the samples have been presented in relation to personal characteristics, awareness about surgery and sources of information for the experimental and control group.

Section – II Comparison of the level of preoperative anxiety of experimental and control group

Preoperative anxiety of experimental and control group has been analyzed one day before the surgery and on the day of surgery in six areas of anxiety (state anxiety, pain, preoperative preparation, anesthesia, surgery, daily living) and in four levels of anxiety (No anxiety, mild, moderate, severe) frequency and percentage.

Section – III Comparison of preoperative anxiety of experimental and control groups and level of significance

This analysis has been done comparatively for the experimental and control group in six categories of preoperative anxiety in mean score and mean score percentage and significant difference between the experimental and control group one day before surgery and on the day of surgery.

Section – IV Association of selected demographic variables with overall anxiety of total samples one day before surgery.

SECTION – I DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLES

TABLE I

FREQUENCY AND PERCENTAGE OF EXPERIMENTAL AND CONTROL GROUP ACCORDING TO PERSONAL CHARACTERISTICS

N=30

Characteristics	Experimental group N=15		Control group N=15	
	Frequency	%	Frequency	%
Age				
a. 21 -30 years	5	33.33	5	33.33
b. 31 -40 years	3	20.00	4	26.67
c. 41 -50 years	5	33.33	4	26.67
d. 51 -60 years	2	13.34	2	13.33
Sex				
a. Male	11	73.33	6	40.00
b. Female	4	26.67	9	60.00
Marital status				
a. Married	14	93.33	13	86.67
b. Unmarried	1	06.67	2	13.33
Education				
a. Illiterate	4	26.67	-	-
b. Lower Primary(1-5)	1	06.66	1	06.66
c. Upper Primary (6-8)	3	20.00	4	26.67
d. Higher secondary	6	40.00	3	20.00
e. College	1	01.66	7	46.66
Occupation				
a. Daily wage laborer	4	26.67	3	20.00
b. Industrial worker	4	26.67	4	26.67
c. Professional/governme nt employer	7	46.66	8	53.33
Income				
a. Rs.3,001 – 5,000	12	80.00	9	60.00
b. Rs.5,001 – 7,000	2	13.33	1	06.67
c. Rs.7,001 – 10,000	-	-	-	-
d. More than 10,000	1	06.67	5	33.33
Awareness about surgery				
a. Yes	6	40.00	12	80.00
b. No	9	60.00	3	20.00
Sources of information				
a. Relatives and friends	3	50.00	7	58.33
b. Media	1	16.67	1	08.34
c. Health personal	2	33.33	4	33.33

Table I presents frequency and percentage of experimental and control group according to personal characteristics.

Age

The age of the sample ranged from 21 to 60 years. A little above half the group (53.3%) in experimental group and (60%) in control group were in the age group of 21 to 40 years and 2 samples (13.3%) were between 51 to 60 years in both the groups.

Sex

In the experimental group 11 samples had varying levels of education of which 6 samples (40%) had higher secondary education. In the control group 7 samples (46.6%) had collegiate education and the rest of the samples had either primary or secondary education.

Marital status

Most of the samples 13 to 14 (86.6-93.3) were married in both the groups.

Education

6 samples (40%) in the experimental group had high school education and (27.67%) were illiterate whereas in control group. (46.60%) of the samples were college graduates.

Occupation

Nearly half of the samples in experimental group 7 (46.66%) and more than half of the samples in control group 8 (53.33%) were working as government or professional employees. 3 to 4 samples (20 – 26.67%) in both the groups were either industrial worker or on daily wage.

Income

Income ranged from Rs 3001 to more than 10,000 / per month. 12 samples (80%) in experimental group and 9 (60%) in control group were earning an income of Rs 3001 to 5000 /month. Only 1 sample (6.67%) in experimental group and 5 samples (33.33%) in control group were earning more than T en thousand per month.

Awareness about surgery

Majority of the samples 12 (80%) in the control group were aware about surgery. Only 3 (20%) were not aware about the surgery. In the experimental group only 9 samples (60%) were aware about the surgery.

Sources of information

Nearly half of the samples in the experimental (50%) and in control group (58.33%) received information from relatives and friends. Only (33.33%) in both groups got information from the health care personnel.

SECTION – II COMPARISON OF THE LEVEL OF PREOPERATIVE ANXIETY OF EXPERIMENTAL AND CONTROL GROUPS

TABLE II

FREQUENCY AND PERCENTAGE OF EXPERIMENTAL AND CONTROL GROUP ACCORDING TO STATE ANXIETY LEVEL ONE DAY BEFORE AND ON THE DAY OF SURGERY

N=30

Level of Anxiety	Experimental group N=15				Control group N=15			
	One day before surgery		On the day of surgery		One day before surgery		On the day of surgery	
	F	%	F	%	F	%	F	%
No Anxiety (20)	-	-	2	13.33	-	-	-	-
Mild Anxiety (21 – 40)	5	33.33	12	80.00	12	80.00	8	53.33
Moderate Anxiety (41 – 60)	8	53.33	1	06.67	3	20.00	7	46.67
Severe Anxiety (61 – 80)	2	13.34	-	-	-	-	-	-

Table II presents frequency and percentage of experimental and control group according to state anxiety level one day before surgery and on the day of surgery.

In the experimental group 8 samples had moderate anxiety, 5 samples had mild anxiety and 2 samples had severe anxiety one day before surgery. On the day of surgery after intervention there were 12 patients with mild anxiety an increase from (33.33% to 80%) samples. 2 patients had no anxiety and one patient with moderate anxiety.

In the control group one day before surgery 12 patients were with mild anxiety and 3 patients with moderate anxiety. On the day of surgery there was an increase in the number of patients with moderate anxiety from 3 to 7. 4 patients moved from the level of mild anxiety to moderate level of anxiety.

This table concludes that there was definite reduction in the level of anxiety with regard to state anxiety in the experimental group.

TABLE III

FREQUENCY AND PERCENTAGE OF EXPERIMENTAL AND CONTROL GROUP ACCORDING TO LEVEL OF ANXIETY ON PAIN ONE DAY BEFORE AND ON THE DAY OF SURGERY

N=30

Level of Anxiety	Experimental group N=15				Control group N=15			
	One day before surgery		On the day of surgery		One day before surgery		On the day of surgery	
	F	%	F	%	F	%	F	%
No Anxiety (5)	-	-	1	06.67	-	-	-	-
Mild Anxiety (6 – 10)	1	06.67	7	46.66	7	46.67	4	26.66
Moderate Anxiety (11 – 15)	12	80.00	6	40.00	8	53.33	10	66.67
Severe Anxiety (16 – 20)	2	13.33	1	06.67	-	-	1	06.67

Table III presents frequency and percentage of experimental and control group according to level of anxiety on pain one day before on the day of surgery.

In the experimental group there were 12 patients with moderate anxiety, 2 patients with severe anxiety and only one patient with mild anxiety one day before surgery. On the day of surgery there was an increase in the number of patients with mild anxiety from 1 to 7 and a reduction in the number of patients with moderate anxiety from 12 to 6. There was one patient with no anxiety and severe anxiety on the day of surgery.

In the control group about half the samples had either mild anxiety (46.67%) or moderate anxiety (53.33%) one day before surgery. On the day of surgery there was a reduction in the number of patients with mild anxiety from 7 to 4. From the mild anxiety 2 patients moved to moderate anxiety. There was one patient with severe anxiety.

This table concludes that there was a reduction in the level of anxiety with regard to pain in the experimental group. In the control group there was an increase in anxiety level of patients.

TABLE IV

FREQUENCY AND PERCENTAGE OF EXPERIMENTAL AND CONTROL GROUP ACCORDING TO LEVEL OF ANXIETY ON PREOPERATIVE PREPARATION ONE DAY BEFORE AND ON THE DAY OF SURGERY

N=30

Level of Anxiety	Experimental group N=15				Control group N=15			
	One day before surgery		On the day of surgery		One day before surgery		On the day of surgery	
	Freq	%	Freq	%	Freq	%	Freq	%
No Anxiety (5)	-	-	2	13.33	1	06.67	1	06.67
Mild Anxiety (6 – 10)	10	66.67	13	86.67	10	66.67	11	73.33
Moderate Anxiety (11 – 15)	5	33.33	-	-	4	26.66	3	20.00
Severe Anxiety (16 – 20)	-	-	-	-	-	-	-	-

Table IV presents frequency and percentage of experimental and control group according to level of anxiety on preoperative preparation one day before and on the day of surgery.

In the experimental group there were 10 samples with mild anxiety and 5 patients with moderate anxiety one day before surgery. On the day of surgery there was a increase in the number of samples with mild anxiety from 10 to 13 and 2 samples with no anxiety.

In control group there were 10 samples with mild anxiety, 4 patients with moderate anxiety and one patient with no anxiety one day before surgery. On the day of surgery there was slight increase in the number of samples with mild anxiety from 10 to 11.

This table concludes that there was reduction in the level of anxiety with regard to preoperative preparation in the experimental group.

TABLE V

FREQUENCY AND PERCENTAGE OF EXPERIMENTAL AND CONTROL GROUP ACCORDING TO LEVEL OF ANXIETY ON ANESTHESIA ONE DAY BEFORE AND ON THE DAY OF SURGERY

N=30

Level of Anxiety	Experimental group N=15				Control group N=15			
	One day before surgery		On the day of surgery		One day before surgery		On the day of surgery	
	F	%	F	%	F	%	F	%
No Anxiety (5)	-	-	4	26.67	2	13.33	2	13.33
Mild Anxiety (6 – 10)	8	53.33	10	66.67	8	53.34	6	40.00
Moderate Anxiety (11 – 15)	7	46.67	1	06.66	5	33.33	7	46.67
Severe Anxiety (16 – 20)	-	-	-	-	-	-	-	-

Table V presents frequency and percentage of experimental and control group according to level of anxiety on anesthesia one day before and on the day of surgery.

In the experimental group there were 8 samples with mild anxiety and 7 samples with moderate anxiety one day before surgery. On the day of surgery there was an increase in the number of samples with mild anxiety from 8 to 10 and a reduction in the number of samples with moderate anxiety from 7 to 1 and 4 patients with no anxiety.

In the control group 8 samples had mild anxiety, 5 samples with moderate anxiety and 2 samples with no anxiety one day before surgery. On the day of surgery there was a reduction in the no of patients with mild anxiety from 8 to 6 and increase in the samples with moderate anxiety from 5 to 7.

This table concludes that there was reduction in the level of anxiety with regard to anxiety on anesthesia in experimental group after participating in the interactive session. Where as in the control group there was an increase in the anxiety level of the samples.

TABLE VI

FREQUENCY AND PERCENTAGE OF EXPERIMENTAL AND CONTROL GROUP ACCORDING TO LEVEL OF ANXIETY ON SURGERY ONE DAY BEFORE AND ON THE DAY OF SURGERY

N=30

Level of Anxiety	Experimental group N=15				Control group N=15			
	One day before surgery		On the day of surgery		One day before surgery		On the day of surgery	
	F	%	F	%	F	%	F	%
No Anxiety (5)	-	-	6	40.00	1	06.67	1	06.67
Mild Anxiety (6 – 10)	8	53.33	7	46.67	8	53.33	4	26.66
Moderate Anxiety (11 – 15)	6	40.00	2	13.33	6	40.00	9	60.00
Severe Anxiety (16 – 20)	1	06.67	-	-	-	-	1	06.67

Table VI presents frequency and percentage of experimental and control group according to level of anxiety on surgery one day before and on the day of surgery.

In the experimental group 8 samples had mild anxiety, 6 samples with moderate anxiety and 1 sample with severe anxiety one day before surgery. On the day of surgery there was a reduction in the number of patients with moderate anxiety from 6 to 2 and there were 6 (40%) samples with no anxiety.

In the control group there were 8 samples with mild anxiety 6 samples with moderate anxiety and only one sample with severe anxiety one day before surgery. On the day of surgery there was an increase in the number of patients with moderate anxiety from 6 to 9 and one patient with severe anxiety.

This table concludes that there was a reduction in the level of anxiety with regard to surgery in the experimental group after participating in interactive video session.

TABLE VII

FREQUENCY AND PERCENTAGE OF EXPERIMENTAL AND CONTROL GROUP ACCORDING TO LEVEL OF ANXIETY ON DAILY LIVING ONE DAY BEFORE AND ON THE DAY OF SURGERY

N=30

Level of Anxiety	Experimental group N=15				Control group N=15			
	One day before surgery		On the day of surgery		One day before surgery		On the day of surgery	
	F	%	F	%	F	%	F	%
No Anxiety (5)	-	-	6	40.00	1	6.67	-	-
Mild Anxiety (6 – 10)	-	-	3	20.00	4	26.67	3	20.00
Moderate Anxiety (11 – 15)	9	60.00	4	26.67	5	33.33	8	53.33
Severe Anxiety (16 – 20)	6	40.00	2	13.33	5	33.33	4	26.67

Table VII presents frequency and percentage of experimental and control group according to level of anxiety on daily living one day before and on the day of surgery

In the experimental group 9 (60%) samples with regard to daily living had moderate anxiety and 6 samples had severe anxiety one day before surgery. On the day of surgery there was a reduction in the number of samples with moderate anxiety from 9 to 4 the samples number with sever anxiety reduced from 6 to 2 (40% to 13.33%) and there were in 6 samples with absence of anxiety.

In the control group 5 samples (33.33%) were in each moderate and sever level of anxiety one day before surgery. On the day of surgery the number of samples with moderate anxiety were 5 to 8. 4 samples had severe anxiety and 3 samples with mild anxiety.

This table concludes that there was reduction in the level of anxiety with regard to daily living activities in experimental group after participating in interactive session.

SECTION – III COMPARISON OF PREOPERATIVE ANXIETY OF EXPERIMENTAL AND CONTROL GROUP AND LEVEL OF SIGNIFICANCE

TABLE VIII

MEAN ANXIETY SCORE OF EXPERIMENTAL AND CONTROL GROUP IN DIFFERENT AREAS OF ANXIETY ONE DAY BEFORE SURGERY AND LEVEL OF SIGNIFICANCE

N=30

Areas of anxiety	Max.score	Experimental Group N=15			Control Group N=15			Un paired 't' value P<0.05 df-28
		Mean Score	Mean S %	SD	Mean Score	Mean S %	SD	
State anxiety	80	44.33	55.41	9.31	36.20	45.25	6.60	2.96*
Anxiety on pain	20	13.06	65.30	1.81	11.33	55.65	1.81	2.86*
Anxiety on preparation	20	9.60	48.00	1.78	8.93	44.65	4.47	0.77 NS
Anxiety of Anesthesia	20	10.60	53.00	1.85	8.93	44.00	2.50	2.25*
Anxiety in surgery	20	10.8	54.00	2.92	10.20	51.00	2.85	0.61 NS
Anxiety on daily living activity	20	14.2	71.00	2.07	12.4	62.00	3.60	1.80 NS

***-**Significant. **NS-** Not Significant. **Table value** – 2.14

Table VIII presents mean score and mean score percentage in different areas of anxiety of experimental and control Group one day before surgery and level of significance

In the experimental group the mean anxiety score ranged from 48% to 71%. The highest score of anxiety was seen in with regard to Impact of daily living 71%, secondarily pain 65.30%, other areas mean score percentage ranges from 48% to 55.41%.

In the control group the anxiety score ranged from 44% to 62%. The highest anxiety score was in the area of daily living 62%, second Pain 55.65%, anxiety on surgery 51% other areas ranged from 44% to 44.65%.

Though the mean score of the experimental groups is higher than the control group in all the six areas statistically there was no significant difference in the areas of preoperative preparation (0.77), surgery (0.61), and daily living (1.80).

Statistically significant difference was seen in the anxiety mean score between experimental and control group in the following areas State anxiety (2.96), Pain (2.86) and anesthesia (2.25). In other areas no statistically significant difference was found (preoperative preparation, surgery, daily living)

Figure 2 shows that Mean score percentage of two groups in the six areas of anxiety one day before surgery

TABLE IX

MEAN ANXIETY SCORE OF EXPERIMENTAL AND CONTROL GROUP IN DIFFERENT AREAS OF ANXIETY ON THE DAY OF SURGERY AND LEVEL OF SIGNIFICANCE

N=30

Item	Max.score	Experimental Group N=15			Control Group N=15			Un paired 't' value P<0.05 d.f - 28
		Mean Score	Mean S %	df-14 p<0.5	Mean Score	Mean S %	SD	
State anxiety	80	26.70	33.37	7.28	37.80	47.25	10.90	3.54*
Anxiety on pain	20	9.86	49.33	3.55	12.33	61.65	2.10	2.52*
Anxiety on preparation	20	7.20	36.00	3.09	8.80	44.00	1.90	3.44*
Anxiety of Anesthesia	20	7.20	36.00	2.03	10.20	51.00	2.44	3.60*
Anxiety in surgery	20	6.60	33.00	2.17	10.73	53.65	2.89	4.70*
Anxiety on daily living activity	20	9.33	46.65	4.24	13	65.00	3.99	2.49*

***-**Significant. **NS-** Not Significant. **Table value-** 2.14

Table IX presents mean score and mean score percentage in different areas of anxiety of experimental and control group on the day of surgery and level of significance.

In the experimental group mean score ranged from 33% to 49.33%. The highest anxiety mean score was shown in the following areas Pain 49.33%, daily living 46.65 in preparation and anesthesia 36% in State anxiety 33.37% and 33%in the area of anxiety in surgery.

In the control group mean score ranged from 44% to 65%. The highest anxiety mean score was seen in the area of daily living 65%, Pain 61.65% in the other areas the anxiety mean score ranged from 47.25% to 53.65%.

Statistically significant difference was seen in all the areas of the anxiety mean score on the day of surgery. This shows that the interactive video session has reduced the anxiety level of the patients in all the areas. Unlike the mean score of the experimental group which was higher in all the six areas one day before surgery, after the interaction the mean score of the experimental group in all the six areas was lesser than the control group on the day of surgery.

Figure 3 shows Mean score percentage of two groups on the day of surgery

TABLE X

MEAN ANXIETY SCORE IN DIFFERENT AREAS OF ANXIETY OF EXPERIMENTAL GROUP ONE DAY BEFORE AND ON THE DAY OF SURGERY AND LEVEL OF SIGNIFICANCE

N=15

Items	One day before surgery N=15			On the day of surgery N=15			Paired "t" value p<0.05
	Max.score	Mean Score	Mean S %	Mean Score	Mean S %	SD	df =14
State anxiety	80	44.33	55.41	26.70	33.40	14.30	5.16*
Anxiety on pain	20	13.06	65.30	9.86	49.30	4.05	3.07*
Anxiety on preparation	20	9.60	48.00	7.20	36.00	2.53	2.96*
Anxiety on anesthesia	20	10.60	53.00	7.20	36.00	2.22	5.84*
Anxiety on surgery	20	10.80	54.00	6.60	33.00	3.04	5.03*
Anxiety on daily living activity	20	14.20	71.00	9.33	46.65	3.53	5.63*

***-**Significant**.** **NS-** Not Significant **Table value-** 2.14

Table X presents mean score percentage in different areas of anxiety of experimental and control group on the day of surgery and level of significance.

In the experimental group one day before surgery, the anxiety mean score ranged from 48% to 71%. The highest anxiety mean score was shown in the area of Impact of daily living 71%, second Pain 65.30%, in Sate anxiety 55.41%, in Surgery 54%, and very low score in the area of Preparation 48%.

On the day of surgery the anxiety mean score ranged from 33% to 49.30% the highest anxiety was in the areas of Pain 49.30%, in Daily living activity 46.65% and very low in the area of preparation and anesthesia 36%.

Statistically there was significant difference in anxiety mean score of the experimental group before and after the intervention. After intervention the level of anxiety reduced in all the 6 areas of anxiety.

Figure 4 shows Mean score percentage of experimental group one day before and on the day of surger

TABLE XI

MEAN ANXIETY SCORE IN DIFFERENT AREAS OF ANXIETY OF CONTROL GROUP ONE DAY BEFORE AND ON THE DAY OF SURGERY AND

LEVEL OF SIGNIFICANCE

N=15

Items	One day before surgery N=15			On the day of surgery N=15			Paired "t" value p<0.05
	Max.score	Mean S	Mean S %	Mean S	Mean S %	SD	df =14
State anxiety	80	36.20	45.25	37.80	47.25	7.30	0.85 NS
Anxiety on pain	20	11.33	56.65	12.33	61.65	2.71	1.O9 NS
Anxiety on preparation	20	8.93	44.65	8.80	44.00	1.89	1.55 NS
Anxiety on anesthesia	20	8.93	44.00	10.20	51.00	2.99	1.37 NS
Anxiety on surgery	20	10.20	51.00	10.73	53.65	2.40	0.85 NS
Anxiety on impact on daily living activity	20	12.40	62.00	13	65.00	2.61	1.79 NS

***-**Significant. **NS-** Not Significant **Table value-** 2.14

Table XI presents mean score and mean score percentage of control group one day before and on the day of surgery.

In the control group one day before surgery the anxiety mean score ranged from 44% to 62%. The highest anxiety mean score percentage was seen in the areas of Daily living 62%, Pain 56.65%, in Surgery 51%. A very low anxiety mean score was seen in Anesthesia 44%

On the day of surgery the anxiety mean score ranged from 44% to 65%. The highest anxiety score was seen in Daily living 65%, second Pain 61.65%, in Surgery 53.65% and very low in the Preparation 44%.

Statistically there was no significant difference was seen in all the areas of anxiety. This table concludes that there is no significant difference in the mean score between one day before and on the day of surgery among the control group.

Figure 5 shows Mean score percentage of control group one day before and on the day of surgery

TABLE XII

OVERALL MEAN ANXIETY SCORE AND STANDARD DEVIATION BETWEEN EXPERIMENTAL AND CONTROL GROUP ONE DAY BEFORE AND ON THE DAY OF SURGERY AND LEVEL OF SIGNIFICANCE

N=30

S.No	Assessment of anxiety	Experimental group N=15		Control group N=15			Unpaired 't' value p<0.05 df =28
		Mean	SD	Mean	SD	Mean Difference	
1	One day before surgery	104.2	19.39	87.60	14.5	16.6	2.9*
2	On the day of surgery	66.80	21.40	92.73	18.37	25.93	3.59*

***-** Significant **Table value-** 2.05

Table XII present mean, standard deviation, and mean difference of experimental and control group one day before and on the day of surgery and level of significance.

In the experimental group the overall mean anxiety score one day before surgery was 104.20 whereas in the control group it was 87.60. There was a significant difference in the overall anxiety between the two groups before intervention. The experimental groups had more anxiety than the control group.

On the day of surgery the overall mean anxiety of the experimental group was 66.80 whereas in the control group it was 92.73 statistically there was significant difference between the mean anxiety score of control and experimental group after intervention. The experimental group had less anxiety than the control group.

The hypothesis (H_1) stated that there will be a significant difference between the mean anxiety score of experimental and control group on the day of surgery is accepted

The hypothesis (H_{01}) stated that there will be no significant difference between the mean anxiety score of experimental and control group one day before surgery is rejected.

TABLE - XIII

OVERALL MEAN ANXIETY SCORE AND STANDARD DEVIATIO MEAN DIFFERENCE OF EXPERIMENTAL AND CONTROL GROUP ONE DAY BEFORE AND ON THE DAY OF SURGERY AND SIGNIFICANCE

N=30

S. No	Groups	Mean score One day before surgery	Mean score On the day of surgery	SD	Mean Deference	Paired "t" value p<0.05
1.	Experimental group N=15	104.20	66.80	27.10	37.40	5.34*
2.	Control group N=15	87.60	92.73	10.60	5.13	1.68 NS

***-** Significant **NS-**Not Significant **Table value-** 2.14

Table XIII presents mean score and standard deviation mean difference of experimental and control group one day before and on the day of surgery and significance.

In the experimental group the anxiety mean score decreased from 104.2 to 66.8 after intervention, statistically there was significant reduction in the mean anxiety score. Whereas in the control group there was slight increase in the anxiety means score from 87.6 to 92.7. But was statistically not significant

The hypothesis (H_2) stated that there will be a significant difference between the mean anxiety score of experimental group one day before and on the day of surgery is accepted.

The hypothesis (H_{02}) stated that there will be no significant difference between the mean anxiety score of control group one day before and on the day of surgery is also accepted**.**

SECTION–IV ASSOCIATION OF SELECTED DEMOGRAPHIC VARIABLES WITH OVERALL ANXIETY OF TOTAL SAMPLES ONE DAY BEFORE SURGERY.

TABLE XIV

ASSOCIATION OF DEMOGRAPHIC VARIABLES OF TOTAL SAMPLES WITH LEVEL OF ANXIETY AND THE SIGNIFICANCE

N=30

S. No	Demographic variables	Mild		Moderate		Unpaired 't' value P<0.05 df =28
		Frequency	Percentage	Frequency	Percentage	
1	**Age**					
	21 – 40 years	5	16.66	11	36.66	2.02
	41 – 60 years	7	23.33	5	16.66	NS
2	**Sex**					
	Male	6	20.00	9	30.00	0.16
	female	6	20.00	7	23.33	NS

NS- Not Significance **Table value-** 3.84

Table XIV presents the association of demographic variables with level of anxiety

This table shows that there is no association between the level of anxiety with age (2.20) and Sex (0.16). other demographic variables are not assessed because the less number of samples were distributed in the different level of anxiety.

CHAPTER V

DISCUSSION

In the discussion section, the researcher draws conclusions about the meaning and implications of the finding. This section tries to unravel what the results mean, why things turned out the way they did and how the results can be used in practice.

The study focused on assessing the effectiveness of interactive video information on preoperative anxiety among patients undergoing elective abdominal surgery. This chapter presents the main findings and its discussion.

1. Preoperative anxiety level of experimental and control group.

Table II, III, IV, V, VI explains the level of anxiety of the experimental and control group one day before and on the day of surgery.

Table II – Explains about the level of state anxiety 53.33% of the samples in the experimental group had moderate anxiety one day before surgery, on the day of surgery 80% of them had mild anxiety. Whereas in control group one day before surgery 80% of them had mild anxiety and on the day of surgery it was reduced to 53.33%. The present study revealed that, the level of state anxiety was decreased in experimental group who received the information.

The present study findings are consistent with findings of another study done by **Shimko c. et,al.** (2006) on effect of preoperative instruction on state anxiety. The findings showed that there was significant anxiety reduction after receiving instruction. A study done by **kiyohera L,Y** (2004) to assess the effect of surgery information on anxiety in the preoperative period also supported the present study as the result showed that lower State anxiety level among experimental group.

Table III explains the level of anxiety on pain. 80% of the samples in the experimental group had moderate anxiety one day before surgery. On the day of surgery only 40% of the patients had moderate anxiety and 40% of the patients were moved from moderate anxiety to mild anxiety on pain after receiving interactive video information whereas in control group 53.33% of the patient had moderate

anxiety one day before surgery, on the day of surgery 66.67% of them had moderate anxiety. This clearly shows that the providing information reduces anxiety on pain.

The present study findings are supported by a study done by **Doering S.** (2000) study to assess the videotape preparation of patients for hip replacement surgery. The result revealed that videotape preparation decreases anxiety, stress and was able to cope better with postoperative pain among experimental group patients. A study done by **Sioling M.** (2003) on impact of preoperative information on State anxiety, postoperative pain and satisfaction with pain management. Result showed that the postoperative pain declined more rapidly for patients in the experimental group.

Table IV explains level of anxiety on preoperative preparation. 33.30% of the samples in the experimental group had moderate anxiety one day before surgery. On the day of surgery there were no patients with moderate anxiety and 86.67% of them had mild anxiety whereas in the control group 66.67% of the samples had mild anxiety one day before surgery and on the day of surgery it was increased to 73.33%. The present study showed that there was a reduction in the anxiety among both the groups in the area of preoperative preparation.

Table V explains the level of anxiety of anesthesia. 7 patients in the experimental group had moderate anxiety one day before surgery. On the day of surgery only 1 patient had moderate level of anxiety and 6 patients moved to mild anxiety whereas in the control group 5 patients had moderate level anxiety one day before surgery. On the day of surgery 7 patients had moderate anxiety, 2 patients moved from mild level of anxiety to moderate level of anxiety. The present study revealed that there was an increase in the level of anxiety on anesthesia among control group.

The present study findings are consistent with findings of another study done by **Bondty L R** (1999) on the effect of anesthetic patient education on preoperative patient anxiety. The result showed that a statistically significant difference between the subjects who received Video and Pamphlets than the usual care subjects.

Table VII presents anxiety on daily living. 60% of the samples in the experimental group had moderate anxiety one day before surgery. On the day of

surgery only 26.67% of the samples had the moderate anxiety where as in control group 33.33% had moderate anxiety one day before surgery it was increased to 53.33% on the day of surgery. Present study reveals that there was an increase in the level of anxiety on daily living activity among control group patients.

The present study findings were supported by the study done earlier by **Deyirmenjian M.et al.** (2006) on impact of preoperative patient education on anxiety and recovery of the patients undergoing open-heart surgery. The results showed that Borderline statistical significance was noted for the experimental group in terms of preoperative and postoperative anxiety. The experimental group had a shorter time from awakening to extubation. This study shows that providing patient education will help in reduction of anxiety and also shorter the time of recovery.

2. Comparison of preoperative anxiety of experimental and control group and level of significance

Table VIII explains the level of significance between experimental and control group one day before surgery. There was a significant difference showed in the area of state anxiety ($t=2.96$, $df=28$, $P<0.05$), anxiety on pain ($t=2.86$, $df=28$ $P<0.05$) and anxiety on anesthesia ($t=2.25$, $df=28$, $P<0.05$) one day before surgery. Other three areas (preoperative preparation, surgery, daily living) are not shown statistically significant difference.

Present study revealed that, one day before surgery there was statistically significant difference was seen in the anxiety mean score between experimental and control group. This may be due to the demographic variables which could not be revealed by analysis

Table IX explains the level of significance between experimental and control group on the day of surgery after intervention. There was significant difference was seen all the 6 areas of anxiety ($t= 2.49$ to 4.70, $df=28$, $P<0.05$) between the groups. Present study revealed that there is significant reduction in anxiety after participating in interactive video information.

3. Over all mean anxiety score of experimental and control group and level of significance

Table XII explains the over all mean anxiety score of experimental (104.2) and control (87.6) group one day before surgery. There was significant difference seen between the groups (t=2.90, df=28, P<0.05).

On the day of surgery there was statistically significant difference (t=3.59, df=28, p<0.05) in the mean anxiety score between experimental (66.8) and control (92.73) group was showed. This is due to the effect of interactive video information provided by the investigator.

Present study findings are consistent with findings of another study done by **kilyohara L.Y. et al.** to assess the effect of surgery information on anxiety in the preoperative period. The result revealed that unfamiliarity with the surgical procedure raised state-anxiety levels (P = 0.021).

The present study findings was supported by the study done earlier by **San Antonio (**2008) conducted a study reading of a 1-page informational handout among preoperative patients the result was showed that over 40% of patients demonstrating a statistically significant reduction in their fear levels, the study suggests that consideration should be given in making an informational handout available on a routine basis to patients in preoperative anesthesia and surgical clinics.

Table XIII presents overall mean anxiety score and level of significance in the experimental group between one day before and on the day of surgery. There was significant difference (P=5.34, df=14, P<0.05) seen after receiving interactive video information whereas in control group there is no statistically significant difference (t=1.68, df=14, P<0.05).

Present study findings were not consistent with findings of another study done by **Asilioglu K. et al.** (2004) on effect of preoperative education on open cardiac surgery patient. The study used the planned teaching method. The findings showed that, there was no significant difference in the state and Trait anxiety between groups.

4. Association of demographic variables

Table XIV explains the association between levels of anxiety with demographic variables. The result showed that the significant difference in the age ($t=2.20$, $df=28$, $P<0.05$) and sex ($t=0.16$, $df=28$, $P<0.05$). Other demographic variables are not assessed because of less number of samples.

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATIONS

In this chapter, summary of the study, summary of the findings, Conclusions and Recommendations are presented.

SUMMARY OF THE STUDY

The study was done to assess the effectiveness of interactive Video Information on the preoperative anxiety among patients admitted for elective abdominal surgery. A quasi experimental pre and post control group design was used. The study was conducted in a selected hospital in Tirupur. Using a convenient sampling method 30 subjects were selected and systematically assigned to the control group (15) and experimental group (15).

The conceptual frame work of this study was based on modified **Titler et al. (2004)** Effectiveness Model. Prior to intervention the demographic data were collected and anxiety scale was administered one day before surgery. Then experimental group was subjected to interactive video information for 25 minutes. On the day of surgery anxiety scale was administered again before premedication. The data analysis and interpretation was done using descriptive and inferential statistics.

SUMMARY OF THE FINDINGS

1. Demographic data

Majority of the samples in both the groups were males 56.66%. 60% of the samples were aware about surgery. In the control group majority of the samples 46.66% were graduates. In experimental group 40% of them had higher secondary education. Majority of samples in experimental group 80% and control group 60% had a monthly income of 3001-5000 Rs. In control group 33.33% had a monthly income of more than Rs 10,000.

2. Comparison of level of anxiety

State anxiety level

In the experimental group one day before surgery 5 patients had mild anxiety, after the intervention 12 patients had mild anxiety whereas in control group 12 patients had mild anxiety one day before surgery. On the day of surgery only 8 patients had mild anxiety and 4 patients moved to moderate level of anxiety.

Anxiety on pain

In the experimental group one day before surgery 12 patients had moderate anxiety, on the day of surgery 6 (40%) patients moved to mild anxiety whereas in control group on the day of surgery 3 patients moved from mild anxiety to moderate level of anxiety.

Anxiety on preoperative preparation

In the experimental group 10 patients had mild anxiety one day before surgery, on the day of surgery there were 13 patients with mild anxiety and 2 patients with no anxiety. Whereas in control group on the day of surgery only one patient moved from moderate anxiety to mild anxiety.

Anxiety on anesthesia

In the experimental group one day before surgery there were 8 patients with mild anxiety on the day of surgery 10 patients had mild anxiety and 4 patients with no anxiety whereas in control group on the day of surgery 2 patients moved from mild to moderate level of anxiety.

Anxiety on surgery

In experimental group one day before surgery 8 patients had mild anxiety on the day of surgery 7 patients had mild anxiety and 6 patients (40%) had no anxiety on surgery. In control group on the day of surgery 4 patients moved from mild to moderate level of anxiety and there was only one patient with no anxiety.

Anxiety on daily living

In the experimental group one day before surgery 9 patients had moderate anxiety, on the day of surgery after the intervention there were 6 patients with no anxiety only 6 patients were with moderate anxiety whereas in control group one day before surgery 5 patients with moderate anxiety on the day of surgery 8 patients had moderate anxiety.

3. Level of significance in different areas of anxiety

One day before surgery

Between the experimental and control group there was a statistically significant difference was seen in the area of State anxiety ($t=2.96$, $df=28$, $P<0.05$), Anxiety on pain ($t=2.86$, $df=28$, $P<0.05$), and anxiety on anesthesia ($t=2.25$, $df=28$, $P<0.05$). But there is no significant difference in other areas (preoperative preparation, surgery, impact of daily living).

On the day of surgery

Significant mean score difference was seen between the experimental and control group in all the areas. In state anxiety ($t=3.54$, $df=28$, $P<0.05$). Anxiety on pain ($t=2.52$, $df=28$ $P<0.05$). in the area of preoperative preparation ($t=3.44$, $df=28$, $P<0.05$), anesthesia ($t=3.60$, $df=28$, $P<0.05$), surgery ($t=4.70$ $df=28$ $P<0.05$). and anxiety on daily living ($t=2.89$, $df=28$, $P=0.05$).

Experimental group

Significant mean score difference was seen between one day before and on the day of surgery. Significant difference is seen in all the areas state anxiety ($t=5.16$, $df=14$, $P<0.05$), anxiety on pain ($t=3.07$, $df=14$, $P<0.05$), preoperative preparation ($t=2.96$, $df=14$, $P<0.05$), anesthesia ($t=5.84$, $df=14$, $P<0.05$), surgery ($t=5.03$, $df=14$, $P<0.05$), anxiety on daily living (5.63, $df=14$, $P<0.05$).

Control group

There is no statistically significant difference seen in all the areas of anxiety.

4. Over all anxiety mean score and level of significance

One day before surgery the over all mean anxiety score was, in the experimental group (104.2) and control group (87.60). Statistically significant difference ($t=2.90$, $df=28$, $P<0.05$) was seen between the groups.

On the day of surgery the overall mean anxiety score was in the experimental group (66.80) and control group (92.73). Statistically significant difference ($t=3.59$, $df=28$, $p<0.05$) was seen between the groups.

CONCLUSION

From the findings it is quite evident that the samples who received interactive video information showed significant reduction in the level of preoperative anxiety. The patients in the experimental group showed interest in watching the each clipping and put forward the questions to the investigator. Patients said that the interactive video information was very useful for them to clarifying there doubts and also it given the exact idea about the physical setting of the operation theater. So patients were satisfied with the intervention. The result shows that after interactive video information there was significant reduction of anxiety in all the areas of surgery.

It is quite clear that providing preoperative interactive video information is one of the best psychologically based intervention used to reduce the preoperative anxiety of the patient and promotes recovery of the patients.

IMPLICATION

The findings of the study have implication for Nursing Education, Nursing Service, Nursing Administration and Nursing Research.

Nursing Education

In the field of nursing education the nurse educator should provide in-service education the nurses regarding the physical, psychological, and emotional needs of the preoperative patients. Different teaching aids can be utilized as teaching materials for teaching preoperative patients. The nursing curriculum should emphasis the students on the psychological intervention for pre operative anxiety. Nursing curriculum should teach the students regarding utilization of the simple audio visual

aids to promote the interaction with the patient. Nursing educator can teach these to staff about reduction of anxiety by using video shots and importance of interacting with the patient while providing care to the patient. The nurse educator can create awareness about the importance of interactive video session by providing well developed video clipping.

Nursing Practice

The advantage of providing preoperative information to be emphasized among the nurses this will change the nurses attitude, developing a rapport with the preoperative patient will help them to relive fear of unknown and fear of uncertainty. The findings of the study clearly indicates that interactive video information provided by nursing personnel in preoperative period will help to reduce their anxiety level among patient waiting for surgery. The nurse has to develop adequate skill to explain to preoperative patient, clarifying their doubts and also understand the felt need of the interaction of the preoperative patients.

Nursing Administration

Nurse administrator should be efficient in organization of training program for the preoperative patients. A special nurse health educator can be appointed in the surgical department especially in the preoperative area to provide video information for the preoperative patients. The nurse administrator may allocate resources to do further studies different type of intervention on preoperative care among patients undergoing surgery. Nurse administrator should plan and organize education programmers for nursing personnel and other health care members so that they could appreciate the interactive video information for preoperative patients.

Nursing research

This is only an initial investigation to assess the effectiveness of providing interactive video information for pre operative patients. There is a need for intensive research in the area of nursing to render better service not only by simply providing physical care and also considering psychological aspects of the patient.

Recommendations

1. A similar study can be replicated on a large population
2. A study can be conducted among patients undergoing major surgeries like cardiac surgery.
3. A comparative study can be conducted by using different types of audio visual aid.
4. A similar study can be conducted for the patients undergoing diagnostic procedures

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APPENDIX-i

LETTER REQUESTING PERMISSION TO CONDUCT THE STUDY

From

The Principal

RVS College of Nursing

Sulur, Coimbatore.

To

Managing Director,

Revathi hospital,

Tirupur.

Respected Sir,

Sub : Permission requested to do his research work in your esteemed Hospital.

We request you to grant permission to our M.Sc (N) 2nd year student Mr. R. Purushothaman to do his research work on **"A Study to assess the effectiveness of interactive video information on pre operative anxiety among patients undergoing elective abdominal surgery in selected hospital at Tirupur**" in your esteemed Hospital.

Kindly oblige and do the needful.

Thanking you

Date : Yours faithfully,

Place :

PRINCIPAL

APPENDIX-ii

REQUESTION LETTER FOR VIDEO DEVELOPMENT

From

R. Purushothaman.

Second year MSc Nursing,

RVS College of Nursing,

Sulur, Coimbatore.

To

The Chief Medical Officer,

R.V.S. Medical Trust Hospital,

Coimbatore.

Through the principal

Respected Sir,

Sub : Permission requested to do their project work in your esteemed Hospital

We request you to grant permission to our M.Sc (N) 2nd year student **Mr. R. Purushothaman** to do his project work (for taking video) in your esteemed Hospital.

Kindly oblige and do the needful.

Thanking you

Yours faithfully,

PRINCIPAL

APPENDIX-iii

REQUISITION LETTER FOR CONTENT VALIDITY

From

R.Purushothaman,

M.Sc (N) Student,

RVS College of Nursing,

Sulur, Coimbatore- 641402

To

Through the principal

Sub : Letter requesting opinion and suggestion of experts for establishing content validity of the tool.

I am a M.Sc (N) student in RVS College of Nursing, sulur, Coimbatore in the specialty Medical Surgical Nursing. As per the requirement for the partial fulfillment of this nursing degree under the TN Dr. MGR Medical University, I have selected the following topic for dissertation.**"A study to assess effectiveness of interactive video information on pre operative anxiety among patients undergoing elective abdominal surgery in selected hospital at Tirupur"** I kindly request you to go through the research tool and validate against criteria given in the sheet.

Thanking you

Yours faithfully

R.Purushothaman

Enclosure

1. Objectives of the study
2. Description of the tool
3. Research tool
4. Criteria rating for validation
5. Content validation certificate.

PRINCIPAL

Place:

Date:

APPENDIX- iv

CERTIFICATE OF CONTENT VALIDITY

This is to certify that tool developed by R.Purushothaman M.Sc (N), Second year student RVS College of Nursing, Sulur, Coimbatore to collect data on the problem.

"A study to assess the effectiveness of interactive video infromaton on pre operative anxiety among patients undergoing abdominal surgery in selected hospital at Tirupur"

Is validated by the undersigned and he can proceed with this tool to conduct the main study.

Name & Address :

Signature :

Seal :

Date :

APPENDIX-v

CRITERIA FOR VALIDATION

Kindly go through this tool, please give your views regarding clarity, relevance, adequacy and remarks

ITEMS	CLARITY	RELEVANCE	ADEQUACY	REMARKS
PART 1				
1				
2				
3				
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5				
6				
7				
PART 2				
1				
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4				
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19				
20				
PAIN				
21				
22				
23				
24				
25				

ITEMS	CLARITY	RELEVANCE	ADEQUACY	REMARKS
PREPARATION				
26				
27				
28				
29				
30				
ANESTHESIA				
31				
32				
33				
34				
35				
SURGERY				
36				
37				
38				
39				
40				
IMPACT ON DAILY ACTIVITIES				
41				
42				
43				
44				
45				

Suggestions

Signature:

Name, Designation:

APPENDIX-vi

REQUISITION LETTER FOR CO-GUIDE

From

Mr. R. Purushothaman
M.Sc Second year Nursing,
RVS College Of Nursing,
Sulur, Coimbatore.

To

Dr. R.Ramasamy. MBBS, MS, FMAS
Consultant Laparoscopic and General surgeon,
R.V.S. Hospital, Coimbatore

Through the Principal

Respected sir

Sub : Request for Co-Guide

I wish to state that I am R.Purushothaman M.Sc (N) II year student of RVS College Of Nursing. I have selected the below mentioned topic for dissertation as a partial fulfillment of the Master of Nursing Degree to the Tamil Nadu Dr. M.G.R Medical university.

"A study to assess the effectiveness of interactive video information on pre operative anxiety among patients undergoing abdominal surgery in selected hospital at Tirupur"

Regarding this I am in need of your valuable help and cooperation by providing services to e a Co-Guide for my study.

I humbly request your highness to consider the same and do the needful.

Thanking you,

Yours sincerely

(Mr. R.Purushothaman.)

APPENDIX-vii

QUESTIONNAIRE

INTRODUCTION

It is common for everyone to feel anxious before undergoing surgery. The level of anxiety will differ from one patient to the other. It depends to a large extent on the individuality of patient.

PURPOSE

The Purpose of this questionnaire is to find out you response to the level of pre operative anxiety on the elective abdominal surgery.

INSTRUCTION

Kindly go through the questions stated below and indicate your response by selecting the appropriate option. Your answers will be kept confidential.

SECTION 1

1. AGE

a) 20 - 30 years ☐

b) 30 - 40 years ☐

c) 40 - 50 years ☐

d) 50 - 60 years ☐

2. SEX

a) Male ☐

b) Female ☐

3. MARITAL STATUS

a) Married ☐

b) Unmarried ☐

4. EDUCATION

a) Illiterate ☐

b) Lower primary (1-5) ☐

c) Upper primary (6-8) ☐

d) Secondary ☐

e) Higher secondary ☐

d) Collegiate ☐

5. OCCUPATION

a) Daily Wage Laborer ☐

b) Industrial Worker ☐

c) Professional & Government Employee ☐

6. INCOME

a) Rs 3000 - 5000 ☐

b) Rs 5000 – 7000 ☐

c) Rs 7000 – 10,000 ☐

d) Rs Above 10,000 ☐

7. Do You have prior knowledge about the surgery a. Yes ☐

b. No ☐

8.If Yes, From where did you get information

a) From relatives who under went surgical intervention ☐

b) From Television, Newspaper, Magazine etc., ☐

c) From Doctor, Nurse etc., ☐

SECTION 2

ASSESSMENT OF ANXIETY

Kindly go through the following statement and choose the option that closely define your feeling Tick in one of the column

S.No	State anxiety scale	Not at all	A little	Some What	Very much
1.	I feel Calm				
2.	I feel secure				
3.	I feel at ease				
4.	I feel content				
5.	I feel comfortable				
6.	I feel confident				
7.	I am relaxed				
8.	I feel joyful				
9.	I feel indecisive				
10.	I feel pleasant				
11.	I am tense				
12.	I am regretful				
13.	I feel upset				
14.	I am presently worrying over possible misfortunes				
15.	I feel anxious				
16.	I feel nervous				
17.	I feel strained				

S.No	State anxiety scale	Not at all	A little	Some What	Very much
18.	I feel frightened				
19.	I feel worried				
20.	I feel overexcited and rattled				
	PAIN				
21.	I am anxious about the pain during surgery				
22.	I feel anxious about the pain during recovery				
23.	I am anxious about the adequacy of pain medications				
24.	I am confident I can tolerate pain				
25.	I feel anxious about pain during administration of medication				
	PREPARATION				
26.	I feel anxious about going hungry				
27.	I am anxious about the preparation of the skin for surgery				
28.	I am anxious about waiting time for surgery				
29.	I am anxious about the cost of the surgical intervention.				

S.NO	State anxiety scale	Not at all	A little	Some what	Very much
30	I am mentally prepared for surgery				
	ANESTHESIA				
31	I feel anxious about the procedure of anesthesia				
32	I feel anxious abut the potential complication of anesthesia				
33	I am confident that I would regain consciousness in a normal manner				
34	I feel anxious about how many hours will it take for recovering from anesthesia effect				
35	I feel anxious about facility on anesthesia room				
	SURGERY				
36	I am confident that I will receive the right attention				
37	I feel anxious about the extent of blood loss during surgery				
38	I feel anxious about scar after surgery				
39	I feel anxious about potential complications after surgery				

S.NO	State anxiety scale	Not at all	A little	Some what	Very much
40	I feel anxious about bowel movements after surgery				
	IMPACT ON DAILY ACTIVITIES				
41	I am confident that I will have a fast recovery				
42	I am anxious about my level of activity after surgery				
43	I am anxious about my dependency on people for my daily activities after surgery				
44	I am anxious about diet which I have to follow after surgery				
45	I am anxious about when can I go back to work				

Appendix- viii

DEVELOPMENT OF VIDEO CLIP ON PRE-OPRATIVE INTRACTIVE SESSION

- **ONE DAY BEFORE SURGERY:-**

✓ Preparation of skin by nurse previous day of surgery

✓ Nurse giving test dose for medication one day before the surgery

✓ Consulting by anesthetist along with the patient

- **ON THE DAY OF SUGERY IN THE WARD:-**

✓ Patient lying with the hospital gown and with intravenous fluid replacement

✓ Nurse checking vital signs

- **ANESTHESIA ROOM**:-

✓ Patient lying in anesthesia room

✓ patient connected with continues monitoring

✓ Physician seeing the patient In anesthesia room

- **ON OPRATION THEATER:-**

✓ Physical settings including lightings, table of surgery

✓ Patient lying in the surgery table

✓ Giving anesthesia through intravenously or spinal anesthesia

✓ Connected with oxygen mask

✓ Connected with anesthesia equipment

✓ Medical team members involved in surgery

- **RECOVERY ROOM:-**

✓ Patient lying bed in unconscious and remain silent

✓ Patient on continues monitoring of vitals with monitors

❖ **POST OPRATIVE PERIOD:-**

- ✓ Patient walking around the cot
- ✓ Patient participating in self care activities and taking care of personal hygiene
- ✓ Patient getting ready for the discharge from hospital

After each video clipping

- ➢ Patients encouraged discussing about the video clip
- ➢ Patients encouraged asking questions and clarifying the doubts
- ➢ Provided additional information's along with each video clip